



Northwest Territories Protected Areas Strategy

Ecological Assessment Guidelines

I. INTRODUCTION

The Northwest Territories Protected Areas Strategy (NWT-PAS) outlines a series of eight steps for the planning and establishment of protected areas, one of which (Step 5) calls for a detailed evaluation of the area's ecological, cultural and economic values. Ecological assessments require a detailed inventory of key ecological components in each candidate protected area and an evaluation of how the candidate area contributes to the conservation of these components and ecological processes in the ecoregion, in the NWT, in Canada or even globally.

This document outlines the principles, objectives and process for the ecological assessment (EA) of candidate protected areas. The EA will be carried out in conjunction with cultural, renewable and non-renewable resource assessments through Step 5 of the NWT-PAS.

As stated in the NWT-PAS, the Protected Areas Strategy will conform to all land claim agreements, Aboriginal/inherent and treaty rights, self-government agreements and overlap agreements. In the event of any unforeseen conflicts between this Strategy and such agreements, the latter takes precedence over the Strategy.

Section 2.2 (h) of NWT-PAS identifies ecological integrity as a principle of the NWT-PAS:

“Plan and manage protected areas to maintain biodiversity and ecological processes. In some cases buffer zones, seasonal restrictions and connecting corridors may be needed” (see Supporting Document 5, Page 71).

Supporting Document 5 of the NWT-PAS indicates that:

“Ideally, the size of a protected area should be large enough to:

- incorporate successional stages of habitat and accommodate normal disturbances such as fire,*
- include many types of wildlife habitat and preserve biologically productive and diverse examples of those habitats,*
- maintain self-sustaining land and water systems resistive to environmental change, and conserve sensitive species and the processes supporting them.”*

Purpose of the Ecological Assessment (EA) process:

To assess the ecological value of candidate protected areas and to evaluate their ability to meet the criteria set out in the NWT-PAS Supporting Document 5 and to identify options for optimizing the size and configuration of these areas.

II. OBJECTIVES OF THE EA PROCESS

1. Provide an effective, timely and cost-efficient evaluation of the species diversity and habitat potential of candidate protected areas.
2. As part of the evaluation of candidate protected areas, improve the state of knowledge of ecological processes for these areas.
3. Provide a coordinated and consistent process for government agencies, communities and other stakeholders to plan and implement ecological assessment activities for candidate protected areas.
4. Provide information for the consideration of social and economic implications of the ecological values, to be used along with the social and economic implications of the other evaluation study results for candidate protected areas.

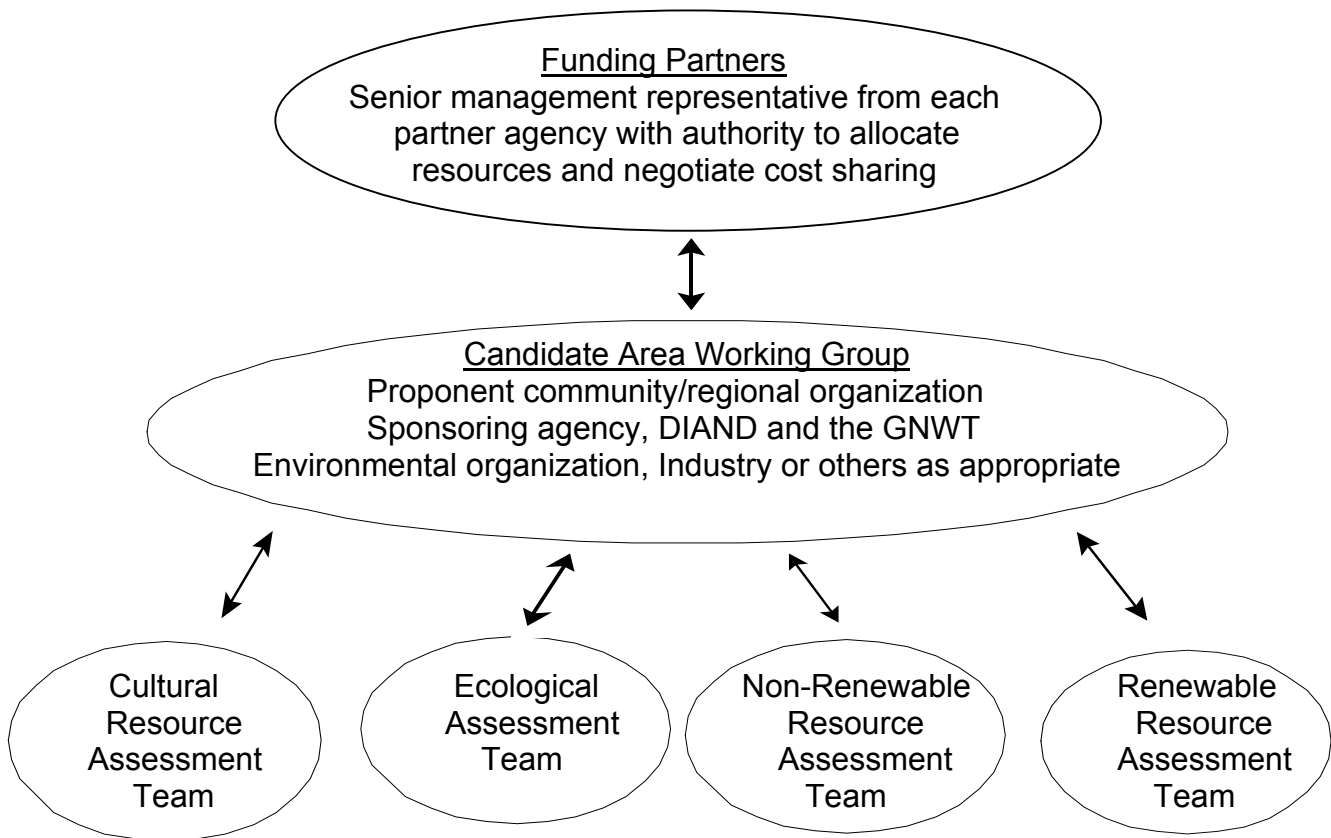
III. PRINCIPLES OF THE EA PROCESS

1. The EA process should be consistent with the principles and goals of the NWT-PAS.
2. EAs should be based on quality ecological surveys and studies and made available for peer and public review.
3. EAs should make full use of available Traditional Ecological Knowledge (TEK).
4. For purposes of EAs, study areas of candidate protected areas should be large enough to allow for possible boundary adjustments.
5. The cost and complexity of each EA, and whether fieldwork is required, should be determined on a case-by-case basis.
6. A work plan for the EA should begin as soon as the sponsoring agency has agreed to sponsor the candidate protected area in Step 3 of the NWT-PAS planning process.
7. Fieldwork, if required, should be conducted in such a way as to cause minimal impacts on the candidate protected area.

8. Information collected during the EA should be managed in a standard manner and be useful for long-term monitoring and other related management applications.
9. EA results should be presented to the communities along with the cultural, non-renewable and other economic evaluations.
10. Reporting of results to communities should be ongoing, timely and in plain language.

IV. FRAMEWORK FOR THE EA PROCESS

The framework diagram below describes how the ecological resource assessment fits within the overall framework of assessments that are carried out through Step 5 of the NWT-PAS process.



The role of the Funding Partners is to approve the work plans and budgets for the cultural, ecological, non-renewable and renewable resource assessments, and allocate funds and resources accordingly.

The Candidate Area Working Group develops the overall work plan for the cultural, ecological, non-renewable and renewable resource assessments, and monitors and reviews progress on the assessments.

Once results are available from the various assessments, the Candidate Area Working Group coordinates consultation and reporting to communities, regional organizations, land-claim bodies, public, industry, environmental organizations and Funding Partners.

V. EA TEAM TERMS OF REFERENCE

1. Reports to a Candidate Area Working Group established under Step 5 of the NWT-PAS process.
2. Develops a specific work plan and budget, and reviews technical aspects of the ecological assessment work.
3. Conducts a review of available ecological information, including TEK, and provides a preliminary assessment to identify data gaps.
4. Develops a specific work plan and budget for fieldwork, if necessary, for review by the Candidate Area Working Group.
5. Conducts technical components of the ecological assessment work, writes a final report, and publishes for peer and public review with the approval of the Candidate Area Working Group.
6. Communicate results of the EA in simple terms and in tandem with reports of other assessment reports directly to public meetings and to the Candidate Area Working Group.

VI. OUTLINE OF THE ECOLOGICAL ASSESSMENT PROCESS

The EA Team defines the ecological study areas, and develops a specific work plan and budgets for the ecological assessment. The Candidate Area Working Group reviews this work plan and budget and recommends a budget allocation to the Funding Partners group. The Funding Partners negotiate the cost sharing arrangements for the Step 5 assessments. Funding for Step 5 assessments may also come from environmental organizations and others.

EA Phase 1

1. Define an initial study area that considers the physiographic, eg. ecoregion, or phytogeographic character of the candidate protected area.
2. Compile and evaluate available existing ecological data, including preliminary habitat delineation, and ecoregion/landscape unit representation analysis conducted at an earlier stage of the candidate protected area proposal.
3. Identify occurrence of focal vertebrate species significant to ecosystem integrity, e.g. keystone or umbrella species in the study area.
4. Determine deficiencies in existing ecological information for boundary delineation of the candidate protected area, and requirements for additional data from field studies.

The EA Team reviews Phase 1 results. The results are reported and presented to the Candidate Area Working Group along with recommendations on the scope and budget for a possible Phase 2 component. The Candidate Area Working Group then makes a recommendation to the Funding Partners on whether to proceed to Phase 2.

EA Phase 2 (if required)

1. Identify and map vegetation to determine land cover composition and extent, through satellite imagery and/or aerial photography and representative ground sampling.
2. Determine plant and animal species in the study area including rare, vulnerable, peripheral or habitat-sensitive species, from documented records and by conducting field studies.
3. Develop and interpret wildlife habitat suitability categories of focal vertebrate species by relating their occurrence to available habitat (Table 1).
4. Recommend boundary modifications and area inclusions/exclusions considering watershed boundaries, areas of high productivity, and concentrated occurrences or important life cycle phases of identified focal vertebrate species.

The EA Team conducts field programs (as required) in consultation with the Candidate Protected Area Working Group and regional organizations/communities, in conjunction with and in addition to scientific and traditional knowledge research and monitoring conducted by other government agencies, communities, environmental organizations, industry and universities.

EA Phase 3

1. Write-up and publication of the Phase 2 report, as required. The draft report peer-reviewed on a confidential basis by critical readers within the federal and territorial governments, and by members of the EA Team and Candidate Area Working Group.
2. Review of EA results by the Candidate Area Working Group, which develops the reporting and consultation approach with the communities, regional organizations, land claim bodies, industry, environmental organizations and public.
3. Release of the EA results as a NWT-PAS document and as a Wildlife and Fisheries (RWED) File and Manuscript Report. This document is combined with the results of the cultural, non-renewable and renewable resource assessments in one report for the candidate protected area.
4. Consultation and workshop with communities, regional organizations and land claim bodies on the Step 5 assessments from all the study teams. A public, industry, environmental organization and government review of the combined candidate area assessments are also carried out.
5. Feedback from communities, regional organizations, land-claim bodies, public, industry, environmental organizations and government on the overall assessment. This forms the basis for a final proposal (Step 6 of NWT-PAS planning process) recommending whether the candidate protected area should be formally established, and if so, specifying management objectives and proposed boundaries.

Table 1. Wildlife Habitat-Suitability Categories for Focal Vertebrate Species

Suitability	Criteria*
Very High	Available vegetation/habitat completely suitable Frequent occurrence of focal species Presence of undetected focal species very likely
High	Available vegetation/habitat very suitable Frequent occurrence of focal species Presence of undetected focal species likely
Moderate to High	Available vegetation/habitat suitable Moderate to frequent occurrence of focal species Presence of undetected focal species likely
Moderate	Available vegetation/habitat suitable Moderate occurrence of focal species Presence of undetected focal species unlikely
Low to Moderate	Available vegetation/habitat suitable Low to moderate occurrence of focal species Presence of undetected focal species unlikely
Low	Available vegetation/habitat largely unsuitable Low occurrence of focal species Presence of undetected focal species unlikely
Very Low	Available vegetation/habitat entirely unsuitable Low occurrence of focal species Presence of undetected focal species very unlikely

* Criteria variables (suitable/moderate/likely) defined by >50% of sampling measurements